Evidence Brief

Transforming African agriculture through sustainable intensification

November 2016

Promoting the production and consumption of locally available micronutrient-rich foods

Situation analysis and operational feasibility in northern Ghana

A Woman preparing a meal in northern Ghana. Photo credit: USAID Ghana

Key messages

More than 50% of children aged less than two years in northern Ghana are at risk of not meeting WHO recommended infant feeding standards. There is an urgent need therefore to improve their dietary diversity and nutritional outcomes by identifying and promoting the production and consumption of locally available micronutrient-rich foods including: vegetables, fruits, and animal-source foods (ASF).

The issue

In Ghana, the prevalence of under nutrition and micronutrient deficiencies remains unacceptably high especially among children and pregnant women. Furthermore, some worrying nutrition and health indicators are found in northern Ghana (Northern, Upper East, and Upper West regions). The national average of poverty is estimated as 39% while in the Northern Region it is 69%, Upper East Region 88%, and the Upper West Region 84%.

The estimated prevalence of chronic malnutrition, for example, in the Northern Region is 33% compared with the national average of 19% (Ghana Statistical Service et al. 2015). Similarly, according to the survey, 66% of children aged 6-59 months in Ghana have some level of anaemia (Hb<11g/dL), but anaemia in children is most common in the Northern Region - prevalence of 82%.

Interventions to reverse the high rates of chronic malnutrition in northern Ghana have to address constraints to providing a sufficiently nutrient-rich diet which is needed for growing children. Against this background, the International Institute of Tropical Agriculture (IITA) in collaboration with the Ghana Health Service (GHS) and the University for Development Studies (UDS) carried out formative research in 2013 to evaluate the situation and operational feasibility of promoting the production and consumption of locally available micronutrient-rich foods.

Findings

- Young children aged less than two years in northern Ghana are at risk of not meeting the WHO recommended infant feeding standards given that less than 50% were on the minimum acceptable diet.
- Provision of diversified diets to children 6-23 months was inadequate in northern Ghana and children aged 6-8 months were at increased risk of poor infant feeding practices.
- Consumption of foods known to have a good content of micronutrients and protein remains poor as most children (90.8%) were fed on cereal-based foods. For example, only 14.3% of children were fed on vitamin A rich fruits and vegetables. Overall, consumption of meat and eggs was reported in less than 12%.
- Keeping rabbits, guinea pigs, or other small ruminants was practiced by less than 5% of households. Fish farming was rarely practiced in the study population.
- Increasing the availability and consumption of animal source foods (ASF) for children through improved household livestock and poultry production merits greater attention.
- Of the children aged 6–23 months; 57.3% met the minimum meal frequency, 35.3% received minimum dietary diversity (≥ 4 food groups), 25.2% had received a minimum acceptable diet and only 14.3% received appropriate complementary feeding.
- Multivariable logistic regression showed that children aged 12-23 months were 26.6 times more likely [AOR

26.57; 95% CI (3.66 - 193.12)] to receive appropriate complementary feeding compared to children aged 6-8 months. Children from households that keep chickens, ducks, or other birds for meat or sale were 2.1 times more likely [AOR 2.09; 95% CI (1.36- 3.23), p = 0.001] to meet minimum dietary diversity, compared to children from households that did not keep such birds.

- The major constraints to adequate child feeding were lack of access to a variety of nutritious foods, inadequate rains which leads to low production, coupled with the fact that there is only one rainy season which often means less of green leafy vegetables during the dry season, no fertilized land for farming and no proper care for livestock (lack of money for vaccination of livestock).

Recommendations

- For improved nutrition, key stakeholders in the Health and Agricultural sectors and policy makers have to work together to launch a sustainable comprehensive community-based social behaviour communication (SBCC) intervention that is backed by nutritionally and culturally appropriate messages.
- Policy makers should take steps to implement interventions that can provide a sufficiently nutrient-rich diet (through enriched complementary foods and community-based food fortification) for children aged 6-23 months to reduce cases of chronic malnutrition.
- Since households that raise poultry and other small ruminants were more likely to feed children with diversified diets, policy makers should improve the economic status of households by supporting them to keep chickens, ducks, or other birds for the meat or sale to aid meeting a minimum diversified diet.
- Implementation of community nutrition interventions should be carried out by existing community-level volunteers, staff of GHS, and agriculture extension workers. The local authorities including assembly men and women should provide political support.

Methodology

A community-based cross sectional cluster survey was carried out in November 2013. The study population comprised mothers/primary caregivers and children aged 6-36 months, selected using a 25 by 24 two-stage cluster sampling procedure.

This formative evaluation involved 1,200 households and was conducted in 50 communities across five districts located in the three Africa RISING intervention regions of northern Ghana.

Both quantitative and qualitative data were collected through face-to-face interviews using pre-tested and validated structured questionnaires. Socio-demographic characteristics, infant health and nutritional status as well as household food production and consumption data were collected. Only one eligible mother or caregiver was randomly selected for interview in any particular sampled household. If more than one eligible woman was available within one household, the mother of the youngest child was interviewed. Five Focus Group Discussions (FGDs) were held, one in each district.

The Africa Research In Sustainable Intensification for the Next Generation (Africa RISING) program comprises three research-for-development projects supported by the United States Agency for International Development as part of the U.S. government's Feed the Future initiative.

Through action research and development partnerships, Africa RISING will create opportunities for smallholder farm households to move out of hunger and poverty through sustainably intensified farming systems that improve food, nutrition, and income security, particularly for women and children, and conserve or enhance the natural resource base.

The three projects are led by the International Institute of Tropical Agriculture (in West Africa and East and Southern Africa) and the International Livestock Research Institute (in the Ethiopian Highlands). The International Food Policy Research Institute leads an associated project on monitoring, evaluation and impact assessment.

Prepared by: Mahama Saaka, University for Development Studies - Ghana

africa-rising.net